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09/863,273	05/24/2001	Cheol Jin	2950-0194P	9250

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EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 08/07/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/863,273

Applicant(s)

JIN, CHEOL

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) all is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

1. Applicant's response of 6/19/03 has been considered with the following results.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In particular, applicant had previously claimed a method of changing a recording mode, between CAV and CLV. The amended independent claims all recite "a method of changing a rotating mode" for recording. No support for such is readily apparent from the disclosure as originally filed. If applicant disagrees with such, then further elaboration and indication where in the specification as originally filed such support exists is respectfully requested. ✓

It is also noted that there is no required ability of recording in clv mode, because only recites recording in a ~~ca~~ mode.

AS FAR AS THE CLAIMS ARE INTERPRETED THE FOLLOWING ART REJECTIONS ARE MADE.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakashima et al considered with Ishikawa et al and all further considered with Finkelstein et al.

Nakashima et al discloses a recording system wherein the recording modes are altered between a CAV and a CLV mode – see the discussion of tables 1-5. Although the recording mode commences in a CLV mode inner region first, the repositioning of the re-writable region to the inside is considered merely an obvious variation, e.g., rearrangement of components, the re-writable region to the interior region, and the read only segment to the outside of the disc.

Although Nakashima et al doesn't rely upon a wobble signal for the ability to determine the CAV or CLV mode, the ability of having such a signal for determining CLV and CAV modes is taught by the Ishikawa et al system.

Furthermore, it isn't explicitly clear in Nakashima et al if the detection/reading is during the writing. Finkelstein teaches the ability of having a read during write process in the recording arts.

It would have been obvious to modify the base system of Nakashima et al and use the wobble signal format for clv, cav modes, motivation is to update the Nakashima et al system to use present signal formats readily available in this environment. Furthermore, motivation in using r-d-w (read during write) abilities would be to reduce any down time between writing and reading, i.e., one can read the written information after the write process are completed, read after write, but such takes time, and doing such a read during write reduces such delays. Hence, the writing process is shorten.

***Response to Arguments***

5. Applicant's arguments filed 6/19/03 have been fully considered but they are not persuasive.

Applicant's interpretation of the examiners interpretation with respect to "altered" and change is correct.

Applicant's attention is drawn to col. 4 lines 1-10 wherein the ability of writing (information is recorded) on the read only area (clv) in accordance with clv mode of recording, and information is recorded in a write-enable region in a cav move. Furthermore, as now recited, the claims only recite the changing of the rotating mode for recording between CAV and CLV, which as interpreted, does not require any clv recording to actually be performed. In fact the claim only recites recording in a cav mode.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokogawa further considered with either Eguchi et al or Fuji, or alternatively Yokogawa further considered with either Eguchi et al or Fuji and all further considered with Okada et al. The following analysis is made.

Yokogawa discloses recording systems, wherein rotation speed of the optical system is appropriately controlled. See the discussion with respect to figures 2 and 3, e.g. col. 3 line 55 to col. 4 line 13. Although the information is recorded with appropriate identification of what mode is in use, there is no disclosed ability of detecting such while recording.

Either Fuji or Eguchi et al discuss the ability of changing the rotation mode of an optical disc system predicated on a detected signal read while recording – see for example the description of fig. 8 in Eguchi et al, and see the description of figure 27, or col. 2 starting at line 15 for example in Fuji.

The examiner interprets such as meeting the claimed ability of determining the current recording speed as required by claim 1.

Alternatively, if applicant can convince the examiner that such ability is not found in the above noted secondary references, then applicant's attention is further drawn to Okada et al.

The ability to determine the current recording speed based on the predetermined signal – i.e., the signals detected in Okada et al, e.g. the detection of the atip frame signal.

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It would have been obvious to modify the base system of Yokogawa with the additional teaching from either Fuji or Eguchi et al, motivation is to provide for an ability to control the rotation mode accordingly, e.g., when recording by using reproduced sych. Signals well known in CAV and CLV modes.

Additionally if the above secondary reference do not teach the limitations with respect to the speed as indicated above, then the ability to further modify such a combination with the additional teaching from Okada et al is considered obvious to one of ordinary skill in the art, motivation is to control the rotation speed of the system in accordance with the clv, cav recording mode in operation at the time of recording.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above as stated in either paragraphs 4 or 6, and further in view of Okada et al

With respect to the limitations of claim 6, the Okada et al system provides for the encoding ability.

It would have been obvious to modify the above noted references relied upon with respect to claim 1, with the further encoding ability of Okada et al – again, selection of a type of discrimination signal/ predetermined signal to be detected, is considered merely a selection between equivalents. That is, whether the predetermined signal is either: a sync, ATIP, a code indicative of the encoding scheme, or a signal indicative of a mode (CAV/CLV) is not of moment, but equivalent abilities.

8. Claims 4,5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as relied upon in either paragraphs 4 or 6 and all further considered with Okada et al.

Again, as stated in paragraphs 4 or 6, systems are disclosed for recording wherein appropriate discrimination ability to detect either CAV or CLV modes of operation is included.

Okada et al further teaches the ability of using wobble frequency as a discrimination signal.

It would have been obvious to modify the base systems as relied above in paragraphs 4 or 5 and modify such with Okada et al so as to detect a If wobble frequency signal and appropriate control further signal processing as a result of comparing such with a predetermined frequency, see Okada et al at col. 2 lines 54 plus.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over either Maeda et al or Nakashima et al each further considered with Syracuse.

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Either Maeda et al or Nakashima et al disclose systems wherein the recording modes are appropriate selected, switched predicated upon proper mode determinations/detection condition. It is noted that the rotating modes are not changed, but rather the recording modes.

The ability or either varying the rotating mode, or the recording mode in this environment predicated upon either CAV or CLV modes of operations are taught by the Syracuse document.

It would have been obvious to modify the base system of either Nakashima et al or Maeda et al with the above teaching from Syracuse, the ability to vary either the rotation or electronic(s)/recording Subsystems is considered a selection between alternative equivalents, i.e., one could vary one or the other, or in more adaptive systems both.

Motivation to change the rotation as opposed to the recording (mechanics as opposed to electronics) is predicated on such considerations as cost, availability, reliability, etc. No unexpected results are seen to occur from selecting an equivalent mode of performing the cav, clv mode.

10. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yokogawa considered with Okada et al or alternatively with Eguchi et al.

Yokogawa discloses a recording system wherein both cav and clv regions are found. Inherently, the disc motor must be changed in those regions in order to record in the appropriate mode. There is no clear depiction of detecting a signal (sync) in order to appropriately control the motor function accordingly.

Okada et al teach the ability of changing the motor rotation predicated upon a detected sync signal.

Alternatively Eguchi et al teaches changing rotation modes for recording between cav and clv modes in accordance with reproduced sync wobble signal.

It would have been obvious to modify the base system of Yokogawa with the above teaching from with Okada et al or Eguchi et al, motivation is to provide the appropriate rotation control for recording appropriately.

11. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 8 i.e., Yokogawa considered with Okada et al above, and further in view of Okada et al.

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With respect to the limitations of claim 9, as known, frequency of the wobble signal(s) can be detected and measured – see Okada et al at col. 2 lines 54 plus.

It would have been obvious to modify the base system of Yokogawa considered with Okada et al and use detection of wobble frequency since such is considered merely a selection of equivalents, i.e., measuring wobble frequency or frame sync are equivalents, and selection between alternative equivalents is predicated on engineering criteria such as cost, availability, reliability, etc.

With respect to the limitations of claim 9, as known, frequency of the wobble signal(s) can be detected and measured – see Okada et al at col. 2 lines 54 plus.

It would have been obvious to modify the base system either Maeda et al or Nakashima et al and use detection of wobble frequency since such is considered merely a selection of equivalents, i.e., measuring wobble frequency or frame sync are equivalents, and selection between alternative equivalents is predicated on engineering criteria such as cost, availability, reliability, etc.

12. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokogawa considered with Eguchi et al.

The limitations of claims 9 and 10 are considered inherently present in the Eguchi et al reference, i.e., the Eguchi et al document detects the sync wobble signal accordingly.

13. Claims 9 and 10 are rejected under 35 USC 103 (a) as being unpatentable over the references as relied upon as stated in paragraph 9 above and further in view of Okada et al.

With respect to the limitations of claim 9, as known, frequency of the wobble signal(s) can be detected and measured – see Okada et al at col. 2 lines 54 plus.

It would have been obvious to modify the base system either Maeda et al or Nakashima et al and use detection of wobble frequency since such is considered merely a selection of equivalents, i.e., measuring wobble frequency or frame sync are equivalents, and selection between alternative equivalents is predicated on engineering criteria such as cost, availability, reliability, etc.

With respect to the limitations of claim 9, as known, frequency of the wobble signal(s) can be detected and measured – see Okada et al at col. 2 lines 54 plus.



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It would have been obvious to modify the base system either Maeda et al or Nakashima et al and use detection of wobble frequency since such is considered merely a selection of equivalents, i.e., measuring wobble frequency or frame sync are equivalents, and selection between alternative equivalents is predicated on engineering criteria such as cost, availability, reliability, etc.

**Conclusion**

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiries concerning missing papers/references, etc. must be directed to: Group 2600 Customer Services at (703) 306-0377.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is: (703) 305-4700.

Any inquiry concerning the merits of this communication or earlier communication from the examiner should be directed to Aristotelis M. Psitos whose telephone number is: (703) 308-1598. The examiner can normally be reached on Monday- Thursday 8-4 EST. Messages can be left on the recording device.

If attempts to reach the examiner, or any of the above telephone contact points are unsuccessful, the examiner's supervisor, W. Korzuch can be reached on: (703) 305-6137.

The FAX number for the organization where this application or proceeding is assigned is: (703) 872-9314.

Aristotelis M. Psitos  
Senior Primary Patent Examiner  
Art Unit 2653



AMP  
March 13, 2003